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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,262	09/25/2003	James M. Walker	DQIP-144	6605

7590 07/26/2005

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EXAMINER
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PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,262

Applicant(s)

WALKER ET AL

Examiner

Alison K. Pickard

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-8,10-14,16,17,20-24,26-28,30-33 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-14,16 and 35-40 is/are allowed.
- 6) ☒ Claim(s) 1,7,8,10,11,17,23,24,26-28 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 20-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 11, 17, 27, 28, and 30-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' APA in view of Stephenson '967.

Under the "background of the invention," Applicants disclose a known metal sealing ring between first and second tubular members comprising a carbon steel body having first and second conical sealing surfaces that seal with mating surfaces on the tubular members.

Applicants disclose that carbon steel has the expansion coefficient required by the claims.

Applicants disclose that the expansion coefficient of the carbon steel body is generally the same as that of the tubular members. Applicants do not disclose at least one of a first and second inlay comprising one of stainless steel or corrosion resistant alloy on one of the conical outer sealing surfaces. Stephenson teaches a metal sealing ring between tubular members having a body with first and second conical sealing surfaces mating with surfaces on the tubular members.

Stephenson teaches using a welded inlay of corrosion resistant alloy to protect the sealing surfaces from corrosion and/or oxidation (3:50-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the sealing surfaces of the prior art with the inlays taught by Stephenson to protect the sealing surfaces from corrosion and/or oxidation.

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Requiring the inlay to be secured by welding is considered a process limitation in a product claim and is given little patentable weight. Regardless, Stephenson teaches the inlay can be welded. Also, as admitted by Applicants' APA, corrosion resistant alloys have a different expansion coefficient than carbon steel.

Regarding claims 28 and 30-33, both the first and second outer sealing surfaces are capable of sealing with sealing surfaces having inlays on the tubular members (intended use).

3. Claims 7, 8, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' APA in view of Stephenson as applied to claims 1 and 17 above, and further in view of Tillman.

Stephenson does not disclose a coating on the body. Tillman teaches a sealing ring having conical sealing surfaces with inlays 31 and 32. Tillman teaches coating the surfaces and inlays with a corrosion-resistant material such as silver or a fluoropolymer to provide a tighter joint (see col. 2, lines 63-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make coat the body with the coating as taught by Tillman to provide a tighter joint and a better seal.

4. Claims 10 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephenson in view of APA as applied to claims 1 and 17 above, and further in view of Sweeney (6,722,426).

Stephenson does not disclose that at least one of the inner sealing surfaces includes a back-up surface adjacent a primary surface that seals with at least one of the outer sealing surfaces. Sweeney (Fig. 4) teaches a sealing ring between first and second tubular members each having inner sealing surfaces that engage the sealing ring. Sweeney teaches forming one of the

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inner surfaces with a primary 19 surface and a back-up surface 21 that engages with an outer sealing surface of the ring in case the primary surface is damaged. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the back-up surface taught by Sweeney to ensure a seal even when the sealing surface of a tubular member is damaged.

***Allowable Subject Matter***

5. Claims 12-14, 16, and 35-40 are allowed.
6. Claims 4-6, and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments filed 5-5-05 have been fully considered but they are not persuasive and are moot in view of the new grounds of rejection.

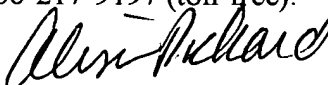
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062.

The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Alison K. Pickard  
Primary Examiner  
Art Unit 3673

AP